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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/617,454	07/17/2000	Walter G. Branco	CY-0015	7824

7590 06/03/2003

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EXAMINER
MARKOFF, ALEXANDER

ART UNIT	PAPER NUMBER
1746	9

DATE MAILED: 06/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/617,454	BRANCO ET AL.	
	Examiner	Art Unit	
	Alexander Markoff	1746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 March 2003* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3,5-13,15,16 and 18-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3, 5-13, 15, 16, and 18-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

Claim Objections

1. Claim 18 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 18 recites limitations which are included in the parent claim.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 1-3, 5-13, 15, 16 and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Van Autryve et al in view of the state of the prior art admitted by the applicants in the specification.

Van Autryve et al teach a method for cleaning.

The method comprises plasma cleaning with gases comprising oxygen generated by RF with the claimed power.

The method also comprises cleaning with acetone.

As to the required selectivity:

First, Van Autryve et al teach application of the claimed plasma to the claimed materials for removing the same contamination as claimed. It is obvious that the selectivity would be the same.

Second, it is noted that the claims recite only one low limitation for the selectivity and do not exclude selectivity being 2:100 or even 1000:100. It means that even the process wherein the part of the chamber is preferentially etched by plasma compare to the contaminants is inside of the claims.

Thus, Van Autryve et al teach the claimed method except for the specific recitation of placing the chamber parts into a solvent., except for the recitation of conventional steps as water rinsing, baking, etc. and the use of ultrasonic to enhance the cleaning.

The applicants admitted in the specification (pages 2 and 3) that application solvents to clean parts by placing them in the solvent; water rinsing and backing are well-known conventional steps of the cleaning chamber parts.

It would have been obvious to an ordinary artisan at the time the invention was made to perform the wet cleaning in Van Autryve et al by any conventional way to achieve the better cleaning. It would also have been obvious to an ordinary artisan to include the conventional steps such as water rinsing and baking into Van Autryve et al with reasonable expectation of adequate results in order to obtained cleaned chamber.

As to the use of ultrasonic: the ultrasonic step of the claimed method is interpreted in view of the applicants Remarks and the cited authorities as application of ultrasonic to a liquid contacting the object to be cleaned.

The use ultrasonic to enhance liquid cleaning, rinsing and scrubbing cleaning was well-known and conventional in the art.

It would have been obvious to an ordinary artisan at the time the invention was made to apply ultrasonic during liquid cleaning and scrubbing to enhance the cleaning with reasonable expectation of adequate results.

As to the requirement to conduct solvent cleaning for the claimed time:

Cleaning time is a result effective variable. It would have been obvious to an ordinary artisan at the time the invention was made find an optimum cleaning time by routine experimentation.

Response to Arguments

6. Applicant's arguments filed 3/13/03 have been fully considered but they are not persuasive.

The applicants argue that Van Autryve et al do not teach placing the chamber part into the solvent. It is not persuasive because the reference teaches wet cleaning. This process requires scrubbing and dissolving. It is obvious that at least some parts of the chamber would be in the solvent.

Moreover, the rejection is made over the combination of the art. The applicants themselves have admitted that placing parts into solvent was conventional.

The applicant argue that Van Autryve et al do not teach removing a chamber part from the chamber.

This is not persuasive because of the following: first, the applicants themselves have admitted that placing parts into solvent was conventional; second, the claims are silent regarding the step of removing the part from the chamber.

As to the time limitation:

The applicants argue that the longer time would causes etching the quartz parts by ammonia peroxide solution and thereby the rejection is not proper.

This is not persuasive because of the following: first, most of the claims are silent regarding the material of the part; second, none of the claims required cleaning in the

ammonia peroxide solution; third, the prior art teaches the use of acetone – the same solvent as claimed; fourth, even in the case of ammonia peroxide solution and the quarts part the time needed to dissolve contamination depends from the level of the contamination. It would have been obvious to an ordinary artisan at the time the invention was made to perform the cleaning until the contaminants are removed.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander Markoff whose telephone number is 703-308-7545. The examiner can normally be reached on Monday - Friday 8:30 - 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy P. Gulakowski can be reached on 703-308-4333.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0651.

Alexander Markoff
Primary Examiner
Art Unit 1746

am
June 2, 2003

ALEXANDER MARKOFF
PRIMARY EXAMINER